

**WHAT IS CLAIMED IS:**

1. A mine transportation management system, comprising:
  - a plurality of self-propelled vehicles each having
  - 5 communication means and being identifiable;
  - a plurality of vessels each having communication means
  - and being identifiable;
  - at least one loading machine having communication
  - means and loading an object to be loaded into at least one
  - 10 vessel out of said plurality of vessels;
  - a processing facility; and
  - a management center having communication means,
  - wherein each of said plurality of self-propelled vehicles
  - is connectable to and separable from each of said plurality of
  - 15 vessels; and
  - wherein said management center selects a vessel to be
  - transported and selects a self-propelled vehicle for transporting
  - said selected vessel from said plurality of self-propelled
  - vehicles and said plurality of vessels, based on a transportation
  - 20 demand signal from said processing facility, and transmits a
  - transportation command signal to said selected self-propelled
  - vehicle, whereby said selected self-propelled vehicle connects
  - to said selected vessel and travels to said processing facility.
- 25 2. The mine transportation management system according

to Claim 1,

wherein said management center transmits a travel  
command signal to said selected self-propelled vehicle after  
said selected self-propelled vehicle discharges the loaded  
5 object to said processing facility, and makes said selected  
self-propelled vehicle travel to a designated position and  
separate said selected vessel therefrom.

3. A mine transportation management method,  
10 wherein a management center having communication  
means receives signals from a plurality of self-propelled  
vehicles each having communication means and being  
identifiable, signals from a plurality of vessels each having  
communication means, being connectable to and separable from  
15 said plurality of self-propelled vehicles and being identifiable,  
and a signal from at least one loading machine having  
communication means and loading an object to be loaded into at  
least one vessel out of said plurality of vessels;

wherein a vessel to be transported is selected from said  
20 plurality of vessels based on a transportation demand signal  
from a processing facility to which the loaded object is  
discharged;

wherein a self-propelled vehicle for transporting said  
selected vessel is selected from said plurality of self-propelled  
25 vehicles; and

wherein said selected self-propelled vehicle connects to said selected vessel and travels to said processing facility by a transportation command signal being transmitted to said selected self-propelled vehicle from said management center.